## SCIENCE

NEW SERIES. VOLUME XXXIX

JANUARY-JUNE, 1914

NEW YORK
THE SCIENCE PRESS
1914

THE NEW ERA PRINTING COMPANY, 41 NORTH QUEEN STREET, LANCASTER, PA.

## CONTENTS AND INDEX.

NEW SERIES. VOL. XXXIX.—JANUARY TO JUNE. 1914.

The Names of Contributors are Printed in Small Capitals.

ABBOT, C. G., Solar Constant of Radiation, 335 Adams, C. C., Animal Ecology, V. F. SHELFORD, 580 Aerials, Small, C. W. WAGGONER, 463 Aerology, Standard Units in, A. McADIE, 391 Agricultural Chemists, Assoc. of Official, Presidential Address, 9 Agriculture, Chemistry of, G. S. FRAPS, 9 AIKINS, H. A., Government of Societies, 711 Alfalfa, P. J. O'GARA, 905 ALLEN, I. C., Amer. Petroleum Soc., 585 Amazon, Expedition to, F. S. DELLENBAUGH, 68 American Assoc. for the Advancement of Science, Address of President, 1; Atlanta Meeting, 39; Section B, 42, 697, 881; Section K, 51, 794; Section A, 113; Section L, 154; Local Branches, 246; Section E, 263, 398; Section G, 299, 405; Report of Secretary for South, 350; Pacific Coast Committee, 352; Section C, 364; Section F, 364; Section H, 546; Meeting of the Council, 640; Committee of One Hundred on Scientific Research, 680; Financial Statement, 694; San Francisco Meeting, 781

Andrews, R. C., Sea Elephant, 656

Anthropological Soc., of Wash., D. Folkmar, 146, 622, 919; Amer., and Amer. Folk-lore Soc., G. G. MACCURDY, 296 MACCURDY, 296

Apes, Anthropoid, H. Gifford, 872
Appointment and Tenure, E. D. Sanderson, 890
Archibald, R. C., Winslow Upton, 202
Armsby, H. P., S. W. Johnson, 509

ARNOLD, R., and H. HANNIBAL, California Eocene,

Astronomical and Astrophys. Soc. of Amer., P. Fox, 333

Atlantic Ocean, H. C. Jones, 726 Atomic Weight of Lead, 831

AUER, J., Amer. Soc. for Pharmacol. and Exper. Therapeutics, 144

BACON, R. F., Robert Kennedy Duncan, 498 Bacon, R. F., Robert Kennedy Duncan, 498
Bacterial Types, C.-E. A. Winslow, 77
Bacteriologists, Soc. of Amer., Presidential Address, 77; A. P. Hitchens, 763, 789
Baekeland, L. H., Morris Loeb, 537
Bailey, S. I., Astronomy, H. Jacoby, 27
Bancroft, W. D., Chemistry, W. A. Tilden, 789
Bassler, R. S., Paleontolog. Soc., 187
Bayley, W. S., Crystallography, G. Linck, 288
Bechterew, W. von, Psychology, H. C. Warren, 426
Bedell, F., Alternating Currents, D. C. and J. P.
Jackson, 106 Jackson, 106

Beetles becoming Parasites, V. L. Kellogg, 360
Beinhart, E. J., and H. K. Hayes, Mutation in Tobacco, 34, 284
Berry, E. W., Fossil Plants in Canal Zone, 357
Bessey, C. E., Botanical Notes, 72, 329, 790, 946;
Trees of H. I., J. F. Rock, 213; Botany, J. M. Coulter, 358; Rocky Mountain Flowers, F. E. and E. S. Clements, 909

Billings, J. S., Portrait, B. G. WILDER, 210 BINGHAM, H., Peruvian Expedition, 679 Biological, Soc. of Wash., D. E. LANTZ, 187, 660;

W. L. McAtee, 844; Chemists, Amer. Soc., P. A. Shaffer, 218; Teaching, M. F. Guyer, 371; M. A. Chrysler, 377; Station, Fairport, R. E. Coker, 457; Station Work at Univ. of Wis., 601 Biology, Exp., Federation of Amer. Societies, A. J. CARLSON, 217

Bison Soc., Amer., W. P. WHARTON, 586 BLAKESLEE, A. F., and A. F. SCHULZE, Mutant in

Bellwort, 621
Bluemel, C. S., Stammering, S. SMITH, 469
BORING, A. M., and R. PEARL, Plumage Patterns,

Bose, J. C., Irritability of Plants, B. E. LIVING-

STON, 511 Boss, B., Seth Carlo Chandler, 348 Botanical, Notes, C. E. BESSEY, 72, 329, 790, 946; Soc. of Wash., P. L. RICKER, 109, 406, 695, 919; Address of President, 733; Soc. of Amer., G. T.

Moore, 253, 289; Congress, 320 Botanist, Social Obligations of, W. W. STOCK-BERGER, 733

Botany, Amer. Jour. of, 570
Bowie, W., Isostasy, 697
Bowman, I., Assoc. of Amer. Geographers, 478
Braga, E., Language of the Brazilian People, 535
Branner, J. C., S. America, H. Savage-Landor, 577
Brazilian People, Language of E. Braga, 535

Branner, J. C., S. America, H. Savage-Landor, 577
Brazilian People, Language of, E. Braga, 535
British Assoc. in Australia, 854
Brooks, C. F., Notes on Meteorology and Climatology, 31, 429
Brown, E. E., Education at Washington, 239
Brown, F. C., Scholarship in America, 587
Bryant Walker Expedition, A. G. Ruthven, 277
Buell, I. M., J. J. Rivers, 319
Burgess, A. F., Amer. Assoc. Econom. Entomol.

BURGESS, A. F., Amer. Assoc. Econom. Entomol.,

BURLINGAME, L., Labelling Slides, 250

CAJORI, F., New Marking System, 874 Cards as Psychological Apparatus, L. W. KLINE

Cards as Psychological Apparatus, L. W. Reine and C. E. Kellogg, 657 Carleton, M. A., Tamarisk for Dry Lands, 692 Carlson, A. J., Amer. Physiol. Soc., 183; Federa-tion of Amer. Societies for Exp. Biol., 217 Carmichael, R. D., Human Progress, 883 Carmichael, R. D., Relativity, E. B. Wilson, 251 Carnegie, Foundation, 780, 847; Institution, R. S. Woodward, 225

WOODWARD, 225

Casteroides Ohioensis, N. A. Wood, 759
CASTLE, W. E., Mutation in Tobacco, 140; Multiple Factors in Heredity, 686; Natural Selection, J. C. Nottram, 944

CATTELL, J. McK., Science, Education and Democracy, 154; Democracy in University Administra-tion, 491

Cell Permeability, E. N. HARVEY, 947

Chamberlain, Alexander Francis, C. W., 821 Chambers, E. T. D., Fisheries of Quebec, J. M. CLARKE, 428 Chandler, Seth Carlo, B. Boss, 348 Chemical Soc. Amer., 387, 950 Chemistry, Applied, Int. Cong. of, 898 CHILD, C. M., Susceptibility Gradients, 73 China, National Monuments of, 863 Chromosomes, Accessory, of Man, M. F. GUYER, 721, 941; of White Man and Negro, T. H. 721, 941; of MORGAN, 827 CHRYSLER, M. A., Biological Teaching, 377 CLARK, G. A., Fur Seal Investigation, CLARKE, F. W., Columbium versus Niobium, 139 CLARKE, J. M., Indian Ladder Reservation, 418; Fisheries of Quebec, E. T. D. Chambers, 428; Eastman-Zittel Paleontology, 723 Clarke, J. M., Devonian Fossils, C. K. SWARTZ, 393 Clements, F. E., and E. S., Rocky Mountain Flowers, C. E. BESSEY, 909 Climatic Changes, 180 Coal Mines, Accidents in, 59 Cockerell, T. D. A., Science from an Easy Chair, R. Lankester, 214; The Evil Eye, R. Park, 359 Cocks, R. S., New Orleans Acad. of Sci., 406, 514, COKER, R. E., Fairport Biological Station, 457 Cole, A. D., Amer. Physical Soc., 370, 569, 796 Cole, F. N., Amer. Math. Soc., 396, 442, 769 Color, Human Skin, F. RAMALEY, 533 Color, Human Skin, F. Ramalley, 333
Columbium versus Niobium, F. W. Clarke, 139
Coulter, J. M., Botany, C. E. Bessey, 358
Crab, Molting of, S. Hecht, 108
Crew, H., Physical Optics, R. W. Wood, 25; Physics, K. E. Guthe, 465

Curriculum Making, E. P. Lyon, 661 Czapek, F., Plant Chemistry, E. Kremers, 612 DADOURIAN, H. M., Analytical Mechanics, E. W. Rettger, 507 Dadourian, H. M., Mechanics, E. W. RETTGER, 140, 940 DALL, W. H., Mollusca, B. B. Woodward, 910 DANFORTH, C. H., St. Louis Acad. of Sci., 882 Danielson, F. H., and C. B. Davenport, The Hill Folk, A. C. ROGERS, 616 DAUGHERTY, R. L., Water, W. McCulloh, 142 Davenport, C. B., Rejoinder to, D. Heron, 24; and F. H. Danielson, The Hill Folk, A. C. Rogers, 616 DAVIS, B. M., Amer. Soc. Naturalists, 322, 397; Gruppenweise Artbildung, H. De Vries, 649 DAY, A. L., Nat. Acad. of Sci., 567 DELLENBAUGH, F. S., Expedition to Amazon, 68 Dennis, L. M., Gas Analysis, A. H. GILL, 286 Densmore, F., Chippewa Music, A. C. FLETCHER, De Vries, H., Gruppenweise Artbildung, B. M. Davis, 649 Diadophis punctata, H. H. T. JACKSON, 534 DICKSON, L. E., Critique of an Old Review, 22 Discussion and Correspondence, 22, 64, 99, 139, 173, 208, 250, 284, 326, 357, 391, 423, 463, 507, 533, 575, 607, 645, 686, 721, 759, 785, 827, 870, 902, 940 Doctor's Dream, V. C. VAUGHAN, 149 Drosophila, Fourth Chromosome, H. J. MULLER, 906 DUNCAN, R. K., Industrial Fellowships, 672

Duncan, Robert Kennedy, R. F. Bacon, 498 Dyar, H. G., Lepidoptera Phalænæ, G. F. Hampson, 691

Earth's Elastic Properties, H. G. Gale, 927
Eastman-Zittel Paleontology, J. M. Clarke, 723
Education, at Washington, E. E. Brown, 239; Premedical, P. G. Woolley, 743; Board, 822
Elliot, D. G., The Primates, G. S. Miller, 28
Embryonic Nervous System, O. Glaser, 730
Entomological, Soc. of Wash., L. G. Hoxton, 224; Soc. of Amer., A. D. MacGillivray, 441; Service, Canadian, 570
Entomologists, Amer. Assoc. Econom., A. F. Burgess, 220
Environment, L. J. Henderson, 524
Eocene, of California, R. Arnold and H. Hannibal, 906
Ephemeris, and Nautical Almanac, J. A. Hoogewerf, 945
Eskers, Cause of, J. Millis, 208
Evans, H. M. and W. Schulemann, Vital Stains, 443
Evans, P. N., Grades, 357
Evolutionary Control, L. B. Walton, 479
Expert, The Day of the, B. I. Gilman, 771

Farrington, O. C., Precious Stones, G. F. Kunz, 539
Fessenden, R. A., Gyroscopic Quanta, 533
Financial Status of College Teachers, 847
Findlay, A., Osmotic Pressure, L. Kahlenberg, 252
Finlay, G. I., Igneous Rocks, J. P. Iddings, 467
Fischer, W. J., Matter and Memory, 209
Fletcher, A. C., Chippewa Music, F. Densmore, 393
Folkmar, D., Anthrop. Soc. of Wash., 146, 223, 622, 919
Foreign Students in America, 717
Forsyth, A. R., Geometry, F. Kasner, 175
Fossil Plants in Canal Zone, E. W. Berry, 357
Fourier's Series, E. B. Van Vleck, 113
Fox, P., Astron. and Astrophys. Soc. of Amer., 333
Fraps, G. S., Chemistry of Agriculture, 9
Free Speech and the Faculty, 68
Freedom, and Fees, 69; of Teaching, 164
Frog, Tissues of, S. J. Holmes, 107
Fur-seals, 529; G. A. Clark, 871
Fürth, O. v., Chemistry, L. B. Mendel, 103

G., H. N., Arthur Henry Pierce, 456
GAINEY, P. L., Nitrifying Powers, 35
GALE, H. G., Earth's Elastic Properties, 927
GARDNER, L. A., Oysters, 541
GARRETT, A. O., Utah Acad. of Sci., 513
Garrison, F. H., History of Medicine, J. P. McM., 468
GATES, R. R., Apogamy in Enothera, 37
Geikie, J., Mountains, J. J. STEVENSON, 212
Geographers, Assoc. of Amer., I. Bowman, 478
Geological Soc. of Amer., 819
Geology, and Evolution, V. L. K., 64
George Washington Memorial, 717
Getman, F. H., Chemistry, V. Lenher, 329
GIFFORD, H., Anthropoid Apes, 872
GILL, A. H., Gas Analysis, L. M. Dennis, 286;
Solvents, Oils, Gums and Waxes, F. S. Hyde, 692; Oils, Fats and Waxes, J. Lewkowitsch, 760
Gilman, B. I., The Day of the Expert, 771
GILMORE, C. W., Ichthyosaurian Remains, 210

GLASER, O., Embryonic Nervous System, 730 Goldschmidt, R., Die Vererbungswissenschaft, A. F. SHULL, 691 GOODSPEED, A. W., Amer. Philos. Soc., 833 GORTNER, R. A., Lowest Temperature, 584 Government of Societies, H. A. AIKINS, 711 Grades, P. N. Evans, 357
Graduate Work, R. Paintner, 326
Graham-Smith, G. S., Flies and Disease, L. O.
HOWARD, 787
GRAVE, C. Amer. Sec. 75. HOWARD, 787
GRAVE, C., Amer. Soc. Zool., 433, 471
Gravity, J. W. SPENCER, 645
GREELY, A. W., Labrador, W. T. Grenfell, 71;
Scott's Last Expedition, 101
Grenfell, W. T., Labrador, A. W. GREELY, 71
Grizzly Bears, C. H. MERRIAM, 424
Groth, B. H. A., Inheritance of Size, 581
Guppy, H. B., Seeds and Fruits, J. W. HARSHBERGER, 873 BERGER, 873

GÜSSOW, H. T., Potato Scab, 431
Guthe, K. E., Physics, H. CREW, 465
GUYER, M. F., Biological Teaching, 371; Accessory Chromosomes of Man, 721, 941 Gyroscopic Quanta, R. A. FESSENDEN, 533 HALE, G. E., National Academies and Researches, Hamaker, J. I., Biology, G. H. PARKER, 831 Hampson, G. F., Lepidoptera Phalænæ, H. G. DYAR, 691 HANNIBAL, H., and R. ARNOLD, Cal. Eocene, 906 HARRIS, J. A., The New Statistics, 828 HARSHBERGER, J. W., Seeds and Fruits, H. B. Guppy, 873
HART, E. B., Sulphates and Phosphates in Soils, 423
HART, H. F., Assoc. Teachers of Math. in Middle States and Md., 112
HARTMAN, F. A., Nighthawks Volplaning, 326
HARVEY, E. N., Artificial Parthenogenesis, J. Loeb, 908; Cell Permeability, 947
HAVES, H. K., and E. J. BEINHART, Mutation in Tobacco, 34, 284
Hazen, A., Clean Water, G. A. SOPER, 872
Heads of Departments, F. L. Washburn, 646

Health of College Students, J. E. RAYCROFT, 707 HECHT, S., Molting of Crab, 108 HEINEMANN, P. G., Agricultural Bacteriology, F. Löhnis, 327

HENDERSON, L. J., Environment, 524 Heredity, Multiple Factors in, W. E. CASTLE, 686 Heredity, Multiple Factors in, W. E. CASTLE, 686
HERON, D., Rejoinder to Dr. Davenport, 24
HILTON, W. A., Marine Lab. on the Pacific, 200
HITCHENS, A. P., Soc. Amer. Bacter., 763, 789
HOLLINGWORTH, H. L., Amer. Psychol. Soc., 370
HOLLISTER, N., Marmot, 251
HOLMES, S. J., Tissues of the Frog, 107
HOOGEWERFF, J. A., Ephemeris and Nautical Almanac, 945
Houston, A. C., Water Supply, G. A. Soper, 872

Houston, A. C., Water Supply, G. A. Soper, 872
Hovey, E. O., The Porto Rico Survey, 896
Howard, L. O., Amer. Assoc., Council of, 640;
Flies and Disease, G. S. Graham-Smith, 787;
Sect. K of Amer. Assoc., 794
Hovmon, L. G. Philos, Son, Univ. of Va., 112. HOXTON, L. G., Philos. Soc., Univ. of Va., 112, 224, 770; Entomol. Soc. of Wash., 224

HUBBARD, D. G., Tilted Shorelines, 470 Human, Behavior, R. M. YERKES, 625; Progress, R. D. CARMICHAEL, 883

HUMPHREYS, W. J., Sect. B, of Amer. Assoc., 881 Hunt, A. E., and J. E. Peabody, Biology, G. H. PARKER, 831

HUSSAKOF, L., Fishes of Japan, D. S. Jordan and others, 178

Hydatina senta, D. D. WHITNEY, 832 Hyde, F. S., Solvents, Oils, Gums and Waxes, A. Н. Сп., 692

Ichthyosaurian Remains, C. W. GILMORE, 210 Iddings, J. P., Igneous Rocks, G. I. Finlay, 467 Illinois, The President of Univ. of, 278; Acad. of Sci., E. N. TRANSEAU, 659 Indian Ladder Reservation, J. M. CLARKE, 418 Industrial, Science, C. R. Mann, 515; Fellowships, R. K. Duncan, 672
INGERSOLL, E., Coloration of Weasels, 284
Inheritance of Size, B. H. A. GROTH, 581

Iowa, Univ., Presidency of, 501 Isostasy, W. Bowie, 697

Jackson, D. C., and J. P., Alternating Currents, F.

BEDELL, 106

JACKSON, H. H. T., Dianophis punctata, 534

JACKSON, L. L., Teaching of Arithmetic, A. W.

Jackson, D. L., Teaching of Arithmetic, A. W. Stamper, 579

Jacoby, H., Astronomy, S. I. Bailey, 27

James, G. O., St. Louis Acad. of Sci., 334, 696

James, W. H., Mechanism, R. McA. Keown, 287;

Machine Design, W. C. Marshall, 288

Jastrow, J., The Anarchist Ideal, R. M. Wenley, 541. Fenny Frader Prize 786

541; Fanny Emden Prize, 786

Javel Water, J. F. SNELL, 689 JEFFREY, E. C., The Mutation Myth, 488

Johannsen, A., Petrographic Methods, Wolff, 690
Johnson, D. S., Sexuality in Plants, 299
Johnson, S. W., H. P. Armsby, 509
Johnston, J., Sect. C, of Amer. Assoc., 364
Jones, H. C., The Atlantic Ocean, 726

Jordan, D. S., S. Tanaka and J. O. Snyder, Fishes of Japan, L. Hussakof, 178
Josephson, A. G. S., Linnæus, 464

K., E., Plant Chemistry, O. Tunmann, 179 K., V. L., Geology, and Evolution, 64 KAHLENBERG, L., Osmotic Pressure, A. Findlay, 25
KASNER, E., Geometry, A. R. Forysth, 175
KAY, G. F., Sect. E, Amer. Assoc. of, 398
Kellicott, W. E., Chordate Development, J. P.
McM., 759 Kelloge, C. E., and L. W. Kline, Cards as Psychological Apparatus, 657

Kellogg, V. L., Beetles becoming Parasites, 360 Keown, R. McA., Mechanism, W. H. James, 287 Kern, F. D., Monographia Uredinearum, P. and H. Sydow, 651 Kindle, E. M., Medina Sandstone, 915

KING, A. S., Magneto-Optics, P. Zeeman, 211 KINGSBURY, B. F., The Microtomist's Vademeceum, A. B. Lee, 618

KLINE, L. W., and C. E. KELLOGG, Cards as Psychological Apparatus, 657 KNOTT, C. G., Napier Tercentenary Celebration,

KORNHAUSER, S. I., Sectioning, 464
KRAUS, E. H., Petrographisches Vade-mecum, E.
Weinschenk, 106; Mineralogy, K Oebekke and

K. Weinschenk, 328

KREMERS, E., Plant Chemistry, F. Czapek, 612 Kunz, G. F., Precious Stones, O. C. FARRINGTON, 539

Labelling Slides, L. BURLINGAME, 250

Lafayette College, 164 Lag and Lead with Braun Tube, J. F. MOHLER, 210 Landor, H. Savage, South America, J. C. Branner,

Lankester, R., Science from an Easy Chair, T. D.

A. COCKERELL, 214 LANTZ, D. E., Biol. Soc. of Wash., 187, 660 Lee, A. B., The Microtomist's Vade-mecum, B. F.

KINGSBURY, 618

Lemons, "Die-back" in, C. B. LIPMAN, 728 LENHER, V., Chemistry, F. H. Getman, 329 LEWIS, E. P., Pacific Coast Committee of Amer. Assoc., 352

LEWIS, M. R., and W. H. LEWIS, Mitochondria in

Tissue Culture, 330 Lewkowitsch, J., Oils, Fats and Waxes, A. H. GILL, 760

Linck, G., Crystallography, W. S. BAYLEY, 288 Linnæus, A. G. S. Josephson, 464 Lipman, C. B., "Die-back" in Lemons, 728

LIVINGSTON, B. E., Irritability of Plants, J. C. BosE, 511

Loeb, J., Artificial Parthenogenesis and Fertiliza-tion, E. N. Harvey, 908 Loeb, Morris, L. H. Barkeland, 537 Löhnis, F., Agricultural Bacteriology, P. H. HEINEMAN, 327

Lorentz, Einstein and Minkowski, Relativity, E. B. WILSON, 944

Lulham, R., Zoology, G. H. PARKER, 831 LULL, R. S., Land Mammals, W. B. Scott, 615 LYON, E. P., Curriculum Making, 661

McAdie, A., Standard Units in Aerology, 391; Principia Atmospherica, W. N. Shaw, 911 McATEE, W. L., Biol. Soc. of Wash., 844; Tama-

risk, 906

risk, 906
McCulloh, W., Water, R. L. DAUGHERTY, 142
MacCurdy, G. G., Amer. Anthrop. Assoc. and
Amer. Folk-lore Soc., 296
McDowell, L. S., The Wellesley Fire, 577
McGillivray, A. D., Entomol. Soc. of Amer., 441
McIntire, W. H., Soil Carbonates, 361
MacLeod, J. J. R., Teaching of Physiology, 51
McM., J. P., History of Medicine, F. H. Garrison,
468; Chordate Development, W. E. Kellicott, 759
McMurrich, J. P. Modesty Overworked, 785

McMurrich, J. P., Modesty Overworked, 785
MANN, C. R., Industrial Science, 515
Marine Laboratory, W. A. Hilton, 200
Marking System, F. Cajori, 874
Marmot, N. Hollister, 251

Marshall, W. C., Machine Design, W. H. JAMES,

Massachusetts Inst. Tech., and Harvard Univ., 132,

Mathematical Soc., Amer., F. N. Colle, 396, 442, 769

Mathematics, Assoc. of Teachers of, H. F. HART, 112; Educational Value of, C. N. Moore, 609

MATTHEWS, B., Universal Organization, 870
Mechanical, the Historical and the Statistical, J. ROYCE, 551

Mechanics, Analytical, H. M. DADOURIAN, 140, 507, 940; New, L. T. More, 595

Medina Sandstone, E. M. KINDLE, 915 MEES, C. E. K., Royal Photographic Soc., 464
Memory, and Matter, W. J. FISHER, 209
MENDEL, L. B., Chemistry, O. v. Fürth, 103
MERRIAM, C. H., Grizzly Bears, 424

Meteorology and Climatology, Notes on, C. F.

Brooks, 31, 429
MEYER, M., Scientific Institutions minus Science, 535

MILLER, E. R., Science Club, Univ. of Wis., 224
MILLER, G. A., Ideals and Scientific Research, 809
MILLER, G. S., The Primates, D. G. Elliot, 28
MILLIS, J., Cause of Eskers, 208

Mines, Bureau of, Pittsburgh, 527
Mitochondria in Tissue Culture, M. R. Lewis and
W. H. Lewis, 330

Modesty Overworked, J. P. McMurrich, 785 MOHLER, J. F., Lag and Lead with Braun Tube,

Moore, C. N., Mathematics and Education, 609
Moore, G. T., Botan. Soc. of Amer., 253, 289
Moore, V. A., N. Y. State Vet. Col., 14
Moral and Religious Training, H. K. White, 722
More, L. T., The New Mechanics, 595
Morgan, T. H., Chromosomes of the White Man
and Negro, 827
Muller, H. J., Drosophila, 906
Museums, Amer. Assoc. of, 771

Museums, Amer. Assoc. of, 771 Mutant in Bellwort, A. F. BLAKESLEE and A. F. SCHULZE, 621

Mutation Myth, E. C. JEFFREY, 488

Napier Celebration, C. G. KNOTT, 639 National Acad. of Sci., A. L. DAY, 567

Naturalists, Amer. Soc. of, 371; B. M. Davis, 322,

Navigation without Logarithms, W. D. Robinson, 912

NEAL, H. V., Sect. F, Amer. Assoc. of, 364 NELSON, A., Taxonomy, 921 New Orleans Acad. of Sci., R. S. Cocks, 406, 514,

New York Veterinary College, V. A. Moore, 14
Nighthawks Volplaning, F. A. Hartman, 326
Nitrifying Powers, P. L. Gainey, 35
Nomenclature, Mineral, E. T. Wherry, 575;
Zoological, C. W. Stiles, 619; A. E. Verrill, 607; J. P. McMurrich, 785
Nottram, J. C., Natural Selection, W. E. Castle, 944

944

NUNN, R., Tenn. Acad. of Sci., 262

Oebbeke, K., and E. Weinschenk, Mineralogy, E. H. KRAUS, 328

Enothera, Apogamy in, R. R. GATES, 37 O'GARA, P. J., Pome Fruits, 620; Alfalfa, 905 OGDEN, R. M., Amer. Assoc., Report for the South,

Ohio, State Board of Health and State University, 419; Acad. of Sci., President's Address, 479 OSTERHOUT, W. J. V., Sect. G, of Amer. Assoc., 405; Chemical Dynamics of Living Protoplasm,

544 Oysters, J. A. GARDNER, 541

P., T. M., Professor Theobald Smith and Animal Pathology, 751 Pacific Assoc. of Sci. Societies, 602, 823

Paleontological Soc., R. S. BASSLER, 187
Park, R., The Evil Eye, T. D. A. COCKERELL, 359
PARKER, G. H., Sex Determination, 215; Experimentation in Zoology, 381; Biology, J. I. Hamaker, J. E. Peabody, and A. E. Hunt, Zoology, R. Lulham, 831
PARSONS, C. L., Amer. Chem. Soc., 950
PARSONS, E. C., The Family, J. A. Todd, 654 Pathology, Russell Sage Inst. of, 898 Peabody, J. E., and A. E. Hunt, Biology, G. H. PARKER, 831 PEARL, R., and A. M. Boring, Plumage Patterns, Peirce, Benjamin Osgood, A. G. Webster, 274
Petroleum Soc., Amer., I. C. Allen, 585
Pharmacol. and Exper. Therapeutics, Amer. Soc. for, J. AUER, 144 Philosophical, Soc., Amer., 38, 770; Annual Meeting, A. W. GOODSPEED, 833; Soc., Univ. of Va., L. G. HOXTON, 112, 224, 770; Assoc., Amer., E. G. SPAULDING, 221; Soc. of Wash., Address of President, 335 Philosophy and Psychol., S. Soc. for, W. C. RUEDIGER, 222 Physical, Sciences, A. G. Webster, 42; Soc. Amer., A. D. Cole, 370, 569, 796 Physiological Soc., Amer., A. J. Carlson, 183 Physiology, Teaching of, J. J. R. MacLeod, 51 Phonetic Spelling, C. P. G. Scott, 285 Photographic Soc., Royal, C. E. K. MEES, 464 Photography, Stereoscopic Effects in, 17 Photosynthesis, A. STEWART, 67 Phytopathological Soc., Amer., C. L. SHEAR, 185 PICKERING, E. C., The Study of the Stars, 1 Pierce, Arthur Henry, H. N. G., 456 PINTNER, R., Graduate Work, 326 Pleistocence History of Mo. River, J. E. Todd, 263 Plumage Patterns, R. Pearl and A. M. Boring, 143 Politics and University Professors, 424 Porto Rico Survey, E. O. Hovey, 896 Potato Scab, H. T. Güssow, 431 Premedical Conference, 387
Priority Overworked, A. E. VERRILL, 607; J. P. McMurrich, 785 Prize, Fanny Emden, J. JASTROW, 786 Professors in Council, 535 Protoplasm, Living, W. J. V. OSTERHOUT, 544 Psychological Soc., Amer., H. L. HOLLINGWORTH, Psychology, Individual, Conference on, R. S. Wood-WORTH, 731

Quotations, 68, 424, 535

Radiation, Solar Constant of, C. G. Abbot, 335
Radiotelegraphic Investigations, 638
Radium, 60; Uranium and Vanadium, 385
RAMALEY, F., Human Skin Color, 533
RANSOM, B. H., Effect of Cold on Trichinella, 181
RAPEER, L. W., School Health, L. M. TERMAN, 725
RAYCROFT, J. E., Health of College Students, 707
REMSEN, I., Smith's Chemistry, 942
Reply to Critique of Review in Science, L. E.
Dickson, 22
Research, Scientific, and Ideals, G. A. MILLER, 809;
and National Academies, G. E. HALE, 189; Committee of One Hundred of the Amer. Assoc., 680
RETTGER, E. W., Mechanics, H. M. Dadourian, 140, 940

Rettger, E. W., Analytical Mechanics, H. M. DaDOURIAN, 507
Reuter, O. M., Insects, W. M. Wheeler, 69
Ricker, P. L., Botan. Soc. of Wash., 109, 406, 695,
919
Rivers, J. J., I. M. Buell, 319
Robinson, W. D., Navigation and Logarithms, 912
Rock, J. F., Trees of H. I., C. E. Bessey, 213
Rogers, A. C., The Hill Folk, F. H. Danielson and
C. B. Davenport, 616
Royce, J., The Mechanical, the Historical and the
Statistical, 551
Ruediger, W. C., S. Soc. for Philos. and Psychol.,
222
Russell, H. N., Solar Spectrum and the Earth's
Crust, 791
Rust on Pome Fruits, P. J. O'Gara, 620
Ruthven, A. G., Bryant Walker Expedition, 277

RUTHVEN, A. G., Bryant Walker Expedition, 277

St. Louis Acad. of Sci., G. O. James, 334, 696; C. H. Danforth, 882

Sanderson, E. D., Appointment and Tenure, 890

Scholarship in America, F. C. Brown, 587

Schuchert, C., Eduard Suess, 933

Schulze, A. F., and A. F. Blakeslee, Mutant in Bellwort, 621

Science, Education and Democracy, J. McK. Cattell, 154; Club, Univ. of Wis., E. R. Miller, 224

Scientific, Notes and News, 18, 61, 94, 135, 168, 204, 247, 279, 322, 353, 388, 419, 459, 502, 529, 571, 603, 641, 682, 718, 754, 782, 824, 865, 899, 935; Books, 25, 69, 100, 140, 175, 211, 251, 286, 327, 358, 393, 426, 465, 509, 537, 577, 612, 649, 690, 723, 759, 787, 828, 872, 908, 942; Journals and Articles, 289, 760; Institutions Minus Science, M. Meyer, 535

Scott, C. P. G., Phonetic Spelling, 285

Scott, W. B., Land Mammals, R. S. Lull, 615

Scott's Last Expedition, A. W. Greely, 101

Scripture, E. W., Stuttering and Lisping, S.

Scott, C. P. G., Phonetic Spelling, 285 Scott, W. B., Land Mammals, R. S. Lull, 615 Scott's Last Expedition, A. W. Greely, 101 Scripture, E. SMITH, 142 Sea Elephant, R. C. Andrews, 656 Sectioning Apparatus, S. I. KORNHAUSER, 464 Sex, Determination, G. H. PARKER, 215; in Multiple Births, E. N. WENTWORTH, 611 Sexuality in Plants, D. S. Johnson, 299 SHAFFER, P. A., Amer. Soc. Biol. Chemists, 218 Shaw, W. N., Principia Atmospherica, A. McADIE, SHEAR, C. L., 'Amer. Phytopatholog. Soc., 185 SHELFORD, V. E., Animal Ecology, C. C. Adams, 580 Shorelines, Tilted, G. D. Hubbard, 470 SHULL, A. F., Die Vererbungswissenschaft, R. Goldschmidt, 691 Sloths, Mylodont, C. STOCK, 761 SMITH, J. R., Soil Erosion, 858 SMITH, S., Stuttering and Lisping, E. W. Scripture, 142; Stammering, C. S. Bluemel, 469 Smith, Theobald, and Animal Pathology, 751 SNELL, J. F., Javel Water, 689 Snyder, J. O., D. S. Jordan and S. Tanaka, Fishes of Japan, L. Hussakor, 178
Societies and Academies, 38, 109, 146, 187, 223, 262, 334, 406, 442, 513, 622, 659, 695, 769, 882,

Soil, Carbonates, W. H. McIntire, 361; Erosion,

J. R. SMITH, 858

Soils, Sulphates and Phosphates, E. B. HART, 423 Solar Spectrum and the Earth's Crust, H. N. Rus-

SELL, 791
SOPER, G. A., Clean Water, A. Hazen; Water
Supply, A. C. Houston, 872

Supply, A. C. Houston, 872

Sovereigns and Opportunity, F. A. Woods, 902

Spaulding, E. G., Amer. Philos. Assoc., 221

Special Articles, 34, 73, 107, 143, 181, 215, 330, 361, 394, 431, 470, 544, 581, 620, 657, 692, 728, 761, 791, 832, 874, 915, 947

Spencer, J. W., Gravity, 645

Springsteen, H. W., Amer. Assoc. at Atlanta, 39

Staining Method, Cytological, O. E. White, 394

Stains, Vital, H. M. Evans and W. Schulemann, 443

Stamper, A. W., Teaching of Arithmetic, L. L. JACKSON, 579

Stanford University, 716
Stars, Study of, E. C. Pickering, 1
Statistics, The New, J. A. Harris, 828
Stevens, F. L., Strawberry Disease, 949
Stevens, W. LeC., Student Elections, 91, 392
Stevenson, J. J., Mountains, J. Geikie, 212
Stewart, A., Photosynthesis, 67
Stiles, C. W., Zoological Nomenclature, 619
Stock, C., Mylodont Sloths, 761
Stockberger, W. W., Social Obligations of

STOCKBERGER, W. W., Social Obligations of the

Botanist, 733 Strawberry Disease, F. L. STEVENS, 949

STRONG, E. K., JR., Amer. Assoc., Sect. K, 546
STRONG, F., Cooperation among Universities, 508
Student Elections, W. LeC. Stevens, 91, 392
Suess, Eduard, C. Schuchert, 933
Susceptibility Gradients, C. M. Child, 73

SWARTZ, C. K., Devonian Fossils, J. M. CLARKE,

Sweating the Scientist, 633

Sydow, P. and H., Monographia Uredinearum, F. D. KERN, 651

Tamarisk, for Dry Lands, M. A. CARLETON, 692;

W. L. McAtee, 906 Tanaka, S., D. S. Jordan and J. O. Snyder, Fishes of Japan, L. Hussakof, 178

Taxonomy, A. Nelson, 921
Temperature, Lowest, R. A. Gortner, 584
Tennessee Acad. of Sci., R. Nunn, 262
Terman, L. M., School Health, L. W. Rapeer, 725

THOMPSON, C. B., Wellesley College Fire, 500 Thyreoid, Sheep, Experiments, P. A. West, 918 Tilden, W. A., Chemistry, W. D. BANCROFT, 789
Tobacco, Mutation in, H. K. HAYES and E. J.
BEINHART, 34, 284; W. E. CASTLE, 140

Todd, J. A., The Primitive Family, E. C. PARSONS,

TODD, J. E., The Missouri River, 263

TOMBO, R., JR., University Statistics, 124, 454 Torres Straits, Carnegie Expedition to, 278 TOWNSEND, C. H. T., Verruga and Carrion's Fever,

99

TRANSEAU, E. N., Ill. Acad. of Sci., 659 Trichinella, Effect of Cold on, B. H. RANSOM, 181 Tuberculosis and Typhoid Fever, C. E. WOODRUFF,

Tunmann, O., Plant Chemistry, E. K., 179

Universities, Cooperation among, F. STRONG. 508

University and Educational News, 21, 63, 98, 138, 172, 207, 249, 283, 325, 356, 391, 422, 462, 506, 533, 575, 606, 644, 686, 720, 758, 784, 826, 869, 901, 939; Statistics, R. Tombo, Jr., 124, 454; Provincial, F. F. Wesbrook, 407; Professors, Nat. Assoc. of, 458; Administration, J. McK. Cattell, 491; Organization, B. Matthews, 870 Upton, Winslow, R. C. Archibald, 202 Utah Acad. of Sci., A. O. Garrett, 513

VAN VLECK, E. B., Fourier's Series, 113 VAUGHAN, V. C., The Doctor's Dream, 149 VERRILL, A. E., Priority Overworked, 607 Verruga, C. H. T. TOWNSEND, 99

W., C., Alexander Francis Chamberlain, 821 WAGGONER, C. W., Small Aerials, 463 Walcott, Dr. Henry P.—a Tribute, 779 WALDO, C. A., Calvin Milton Woodward, 496 WALTON, L. B., Evolutionary Control, 479
WARREN, H. C., Psychology, W. v. Bechterew, 426
WASHBURN, F. L., Heads of Departments, 646
Weasels, Winter Coloration, E. Ingersoll, 284 Weaver, E. E., Mind and Health, R. S. WOODWORTH,

Webster, A. G., Physical Sciences, 42; Benjamin

Osgood Peirce, 274
Weinschenk, E., Petrographischen Vade-mecum, E. H. KRAUS, 106; and K. Oebekke, Mineralogy, E. H. KRAUS, 328

Wellesley College Fire, C. B. THOMPSON, 500; L. S.

McDowell, 577
Wellman, S. T., George Westinghouse, 599
Wenley, R. M., The Anarchist Ideal, J. Jastrow, 541

WENTWORTH, E. N., Sex in Multiple Births, 611 WESBROOK, F. F., The Provincial University, 407 WESBROOK, F. F., The Provincial University, 407
WEST, P. A., Sheep Thyreoid Experiments, 918
Westinghouse, George, S. T. Wellman, 599
WHARTON, W. P., Amer. Bison Soc., 586
WHEELER, W. M., Insects, O. M. Reuter, 69
WHERRY, E. T., Mineral Nomenclature, 575
WHITE, H. K., Moral and Religious Training, 722
WHITE, O. E., Cytological Staining Method, 394
WHITNEY, D. D. Production of Males and Females.

WHITNEY, D. D., Production of Males and Females, 832

WILDER, B. G., Portrait of J. S. Billings, 210
WILSON, E. B., Relativity, R. D. Carmichael, 251;
Lorentz, Einstein and Minkowski, 944 Winslow, C.-E. A., Bacterial Types, 77

Wolff, J. E., Petrographic Methods, A. Johannsen,

Wood, N. A., Castoroides Ohioensis, 759 Wood, R. W., Physiological Optics, H. Crew, 25 Woodruff, C. E., Tuberculosis and Typhoid Fever,

Woods, F. A., Sovereigns and Opportunity, 902 Woodward, B. B., Mollusca, W. H. Dall, 910 WOODWARD, R. S., The Carnegie Institution, 225 WOODWORTH, R. S., Mind and Health, E. E. Weaver, 71; Conference on Individ. Psychol., 731 WOOLLEY, P. G., Premedical Education, 743

YERKES, R. M., Human Behavior, 625

Zeeman, P., Magneto-Optics, A. S. King, 211 Zoologists, Amer. Soc. of. C. Grave, 433, 471 Zoology, Experimentation in, G. H. PARKER, 381